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THE SCHOOL REVIEW

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EDUCATION AT THE PARIS EXPOSITION

PROFESSIONAL OPPORTUNITIES IN A JUROR'S WORK

ONE of the prominent French jurors in comparing the school system of France with the United States expressed the regret that our high schools in certain particulars ranked with their primary schools. The misconception arose from the French assumption that their primary schools are the equivalent of our high schools and that their colleges are the coördinates of ours. The discussions that arose in the jury, and the misconception of the foreign school systems early led to my graphically representing four great systems, which were used in the discussions of our work. These rough sketches thoroughly revised will be reproduced from advanced sheets of *Professional Education in Foreign Countries*. Before instituting a comparison between these systems and their exemplification at the Exposition a sketch based on official information and confirmed by personal inspection of the French school system, the basis of the classification of education at the Exposition, is necessary.

The city of Paris afforded a most excellent opportunity for supplementing the study of the educational exhibits from France. For nearly three months the active work on the jury of class and group was alternated almost daily by inspection of the French school system, beginning with the lowest class of the

école maternelle and terminating with the highest of the Sorbonne. A previous experience in which my letters of introduction disappeared never to be heard from taught me how to secure the fullest and freest facilities and courtesies, both from the heads of the central administrative departments and from the executive heads of the local institutions. The time necessary to secure these facilities may interest others who contemplate making such inspections.

On May 23 I wrote the director to fix by appointment a date when my credentials might be submitted. The answer was dated May 25, and an appointment made for May 28. On May 30 authority was granted to inspect the superior and secondary schools of the city and permission requested from the director of agriculture and veterinary schools, as well as the director of the primary schools of Paris. From the former, authority was received June 6 and from the latter on June 13. On June 19 permission to assist at an examination to be held June 21 was received. But this long delay of nearly a month was more than offset by the opportunities afforded. For at sight these letters of authority invariably opened to the freest inspection and furnished the fullest information. A good illustration of their kindly forethought is furnished in my experience at the Secondary Normal School for Girls at Sèvres. I had casually mentioned to one of my colleagues that I contemplated visiting that institution on a certain day and hour, should I return from the seashore in time, but I was so little certain of my return that I deemed it unwise to make an appointment with the directress. Having returned in time, I visited the school as planned. I was surprised to find the directress at leisure and I enjoyed a thorough tour of the entire building under her guidance. About two weeks later, a letter that had gone astray in the mail informed me that this colleague had written the directress of my purpose to be present and expressed the hope that I would find it an excellent opportunity to inspect the school under the guidance of the directress herself.

Mothers' Schools (École maternelle).—The time limit in the école maternelle by rule is from two to six years, but pupils

entering at the minimum two years are becoming less and less as the crèches carry the children to the third year. Again, more and more of these schools possessing three, four and even six classes are carrying the children forward to the seventh and into virtually the first year of the primary course. The character of instruction more closely resembles that of our primary schools than of our kindergarten. Most of the pupils are from the working classes, and children of the middle and upper classes are seldom found in these schools. Instruction and material are entirely free, and on request pupils are retained in the school till called for, in order to keep them off the streets. The following description of a teacher's day in a mother's school will afford a good view from the French teacher's standpoint.

After the opening of school, at 8 o'clock in winter and 7 o'clock in summer, the children arrive, accompanied by some member of the family, an older sister or brother that attends the school near by, or the mother.

The teacher in attendance receives them, sees that the lunch baskets of the children who eat at the school are put in their customary place; and the little world forthwith assumes its place on the benches of the recreation hall, an inclosed and covered yard. Till 9 o'clock, the regular school hour, the teacher keeps the children busy either in singing or gymnastic exercises. Note that the school is coeducational and that the sexes are not separated in class, in the yard, or in recreation.

At 9 o'clock all the teachers arrive. Each takes her class, conducts the children to their room, and proceeds to the inspection for neatness. She examines their hands, their handkerchiefs, their clothing. Criticising some and rewarding others for their neatness she promises to be generous tomorrow to those who present a good appearance.

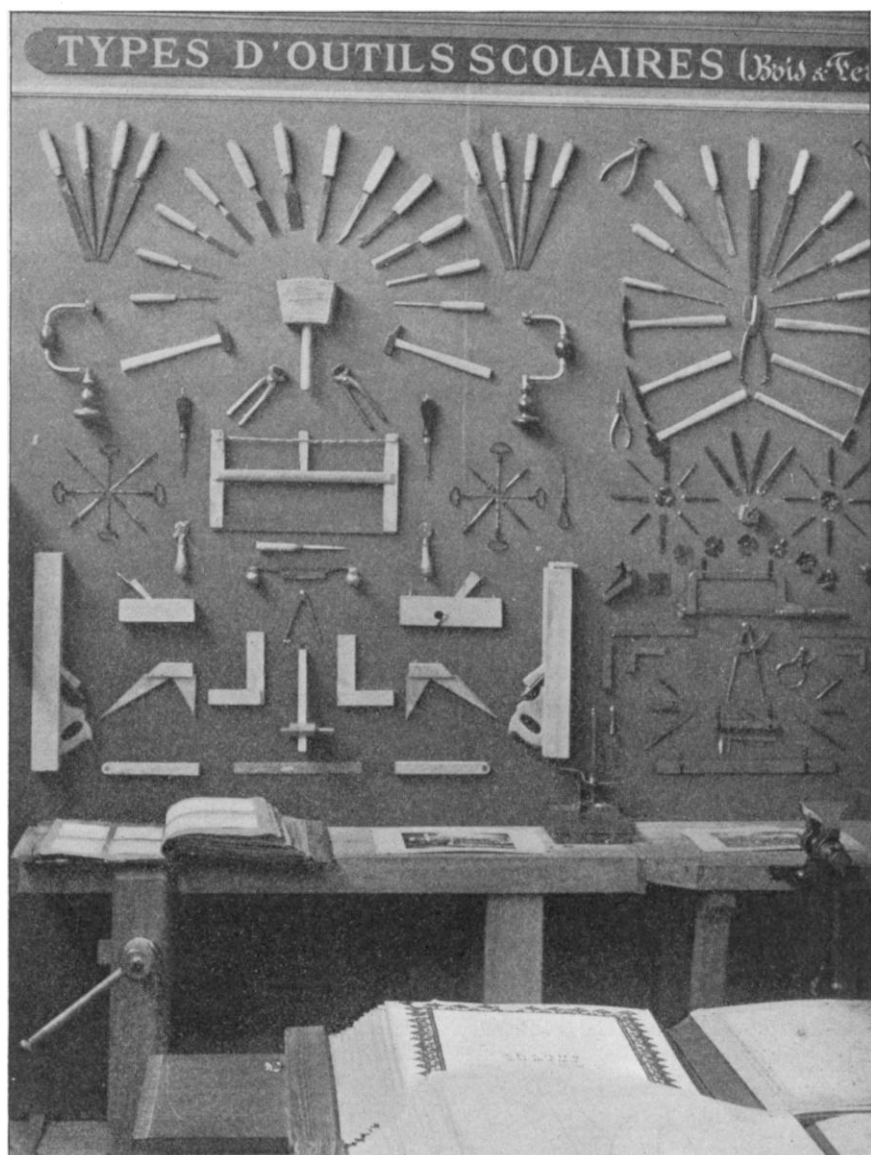
The class sings as it passes and when every one is seated school begins. According to time, and following the order of the program, twenty minutes are devoted to reading, five minutes to singing, twenty minutes to writing and ten minutes to language exercises.

Reading is done by the aid of movable letters, of letters or

syllables written on the blackboard one after another by the teacher in conjunction with phonetic signs. At quarter past ten there is a half hour's recess when the children play freely but under supervision. When school is resumed, the roll is called and the class has its little lessons in history, geography, or object lessons. At 11:15 the teacher appointed for the duty leads to the yard the children of all the classes that dine at the school. Behind them come the children that alone or attended are going to dine at home. These are conducted in line by a teacher to the gate where they await their attendants. The teacher assisted by the waiting-maid places the children at the tables and distributes to them their lunches. The poor children receive a free portion, soup and vegetables, sometimes soup, vegetables, and meat; the others pay two cents. During the meal which ends at 12:15 the teacher and waiting-maid do not cease to require good manners and even interrupt the lunch to make important criticisms. The play time is free and the teacher that was on duty has been replaced by another. The superintendence consists generally in preventing dangerous games, but a teacher that really understands her work directs the games, takes part in them and interests herself in all the little children who have so much need of good counsel and kind words.

At 1 o'clock, the children are taken to the wash-room. They sing as they pass to class and then come the ordinary school exercises; reading, numbers, interrupted by recitation or singing. These various exercises are continued till 2:30, when they have half an hour for recess. Twice a week after recreation each class practices gymnastics; very simple movements of the arms and legs, rounds and games. Then comes work in manual training or drawing consisting of folding, weaving, cutting out and stitching. Drawing is done in a copybook or with splints. At 4 o'clock the children that go home alone are taken to the gate and the rest await their parents. The school closes at 6 o'clock in winter and 7 in summer.

On leaving the school at six years of age, nearly all the children can read fluently, write legibly, add, subtract, and multiply very simple problems. In districts remote from large cities, the



TYPES OF TOOLS FOR MANUAL TRAINING, WOOD AND IRON
French Primary Schools, Elementary

children are poorly clothed but in general are quite neat. Monday rarely sees a child with a soiled apron. Their education often leaves much to be desired; the little being uses coarse words to express himself, and strikes his companions that contradict him, but he quickly loses these bad habits. All these poor little children who have such great need of affection, as do all children of their age, become so attached to their teachers that they are very happy when they receive a caress from her and are severely punished when they are deprived of it. So it is very easy to govern them.

The parents, with very rare exceptions are always refined and polite to the teachers and when the opportunity occurs they give evidence of their gratitude for the care given their children.

Elementary primary schools.—A problem arose about the close of our first month's residence in Paris as to what to do with "the boy" who was tired of sightseeing and could give little attention to lessons in French. As it would afford a good opportunity to compare primary schools we determined to secure his admission to the grade corresponding with his grade at home. The director of the nearest boys' school had no authority to admit him and recommended that an application be made to the director of primary education of Paris. He informed me that no rule applied and that in the absence of rule if the director of the school would admit him no objection would be made. He was admitted to the same grade as the director's son who was of the same age, and he spent nearly a month in attendance on the school. This gave me an opportunity of seeing the school's work under advantageous conditions.

The primary elementary schools are opened to children of school age, that is to say, from six to thirteen years. There are three classes of these schools, the mixed, common to children of both sexes, the special for boys and the special for girls. As enunciated by the authorities the principal aim of the primary school is to transform the child into a man, but he must be equally prepared so far as possible for the life and condition that he is to attain. For this second reason, manual training and drawing play important parts and contribute to develop the

spirit of observation and the training of the eye and hand. The thirty class hours a week are so distributed that French is taught daily in different exercises at least two hours; scientific instruction from one to one and a half hours; history, geography, and civics about one hour; penmanship one hour in the lower years gradually reduced in the upper; drawing two or three weekly lessons; singing one or two weekly; gymnastics at least one lesson every other day; manual training two or three hours a week. The completion of the compulsory period is determined by an examination which leads to a certificate. Admission to the examination for the primary elementary certificate is opened to candidates who are eleven years old at the end of the scholastic year. The tests of the examination are of two classes, written and oral, which are under the control of a commission and the written secures admission to the oral which comes later. On securing a certificate a pupil is released from compulsory attendance on school, and while many pupils complete the course in less than six years, many also secure the elementary certificate before their thirteenth year. The inspection of the children in the playground, examination of their hands, heads, ears, necks, and clothing by the several teachers is interesting. Entering the building in double lines they stand in the assembly room to listen to remarks on good behavior by the director. They mount the stairs to their rooms in good order, each class or year in charge of a teacher; two women and six men for eight divisions. Class work proceeds on the whole like the corresponding grade in our own schools. A sixth class (lowest) was small but in charge of a good teacher, a woman. Pupils were reading well for the age, but nothing remarkable, and copybooks were good. But the surroundings and the schoolrooms are grimy and order is frequently obtained by whacking on the desk with a stick. Pupils and teacher arise as one enters the room and the pupils sit quietly while teacher and director confer.

In the upper grades the same order maintains, and the teacher's whacks resound again and again. All books, pens, and materials are furnished by the city, and no tuition is charged the pupils. In these schools some pupils prepare for competitive

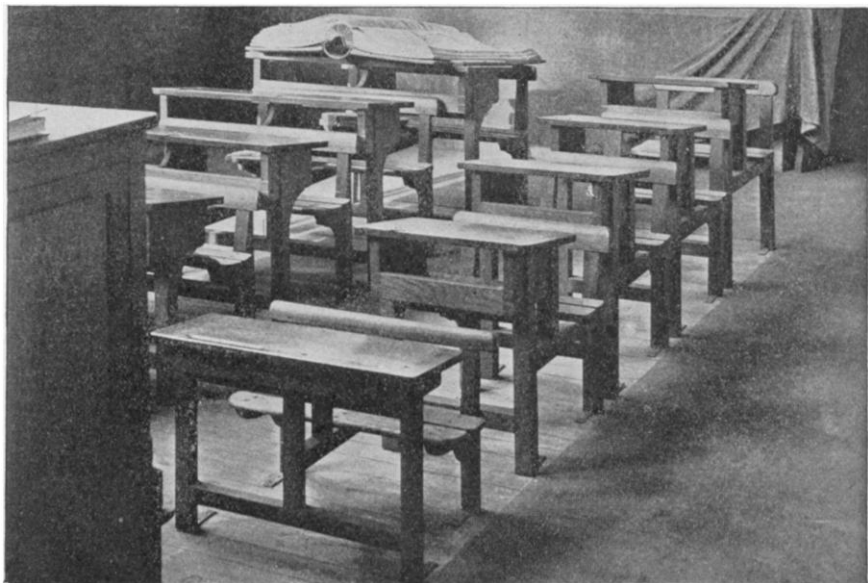
examination for admission to the lycées, a number of scholarships being accessible to the pupils of the primary school. Directors do not examine their own papers, but are under the necessity of examining those of other schools. None are admitted to the examinations other than inspectors, but my letter of authority opened a door to a full examination by making me an assistant in examination.

An inspection of the boys' and girls' primary showed the same character of work and surroundings. The rooms were provided with single and double desks and seats, little attention being given to form or comfort. The director said that when one room was inspected all were known, and that the seats and desks were of the latest patterns. He called attention to the latest model of a seat, where the first slat was cut in two and hinged so that either individual could rise at less inconvenience. There was no attempt to adjust the seat or desk to the individual use save that the higher were in the rear of the room. A reference to the accompanying cut more plainly reveals the contrast between a model French primary room and those so common in America. There was no attempt at color, flowers, or decoration in the room. Blackboards were scant, but other helps abounded.

As the examinations for the elementary certificate most nearly approximate an examination in one of our own schools, both in methods and purposes, an outline of the subjects required, the time given to the tests, and the maximum mark for each, are given. The examination, based on the middle course-completion, tenth year of age, comprised :

1. A dictation exercise for spelling of fifteen lines or more. The final point of each phrase as it was to be read was indicated. The written page of the pupil also served for the test in writing.
2. Two questions in arithmetic bearing on the application of numbers and on the metric system, with the steps in their solution.
3. A simple revision following a choice made by an inspector of one of three classes of subjects, either (*a*) moral or civic instruction, (*b*) history and geography, (*c*) elementary notions of science and their application.

4. This item is divided, and becomes for boys in rural schools a test of several questions chosen from the instruction given in agriculture, middle course; and for boys in the city a very simple exercise in linear drawing or ornament from the middle course. For the young girls it is work in common sewing under the superintendence of a mistress designated for this



A MODEL ROOM IN A PRIMARY SCHOOL IN FRANCE

purpose. The time given to the spelling depended on the rate of pronunciation, which is quite moderate, and 10 points each are assigned as a maximum to the spelling and reading tests. The arithmetic, revision, sewing, or drawing tests are given an hour each and 10 points each as a maximum. The maximum number of points for the eight items is 80, and boys are admitted to the oral that obtain 20 points, and girls that obtain 25. The oral points are added to the written, and 35 of the 80 points are necessary to receive a certificate.

The pupils from the various schools, accompanied by their teacher, assemble in the courtyard. An assistant from the prefecture prepares for the entrance of the pupils by distributing

paper and blanks for their use. Numbers had been sent to the various schools, and were so distributed that pupils of the same school should not occupy adjacent seats. The rows of seats provided for three pupils each, and were designated a, b, c, d, respectively, the files extending the length of the room and furnishing seats for 240 pupils; the pupils entered from the courtyard as their numbers were called, just as to an omnibus. They began entering about 7:40, and were all seated before 8 o'clock. The question papers were retained by the inspector in their original sealed package and were opened in the presence of his deputies. A representative of the parents and of the mayor was present. The revision of the answer papers was committed to the inspector's deputies under the inspector's supervision, and others were in attendance to help. In the rear of the room, as the examination progressed, were a number of pupils correcting their work from their neighbors' papers, but it would have been almost impossible to prevent this with the numbers present in the limited quarters had the supervising force been greatly augmented.

The following set of question papers was used June 21, 1900. The notes and points of the spelling paper were given by the inspector in charge:

Superior primary and technical schools.—The growth of the superior primary schools is a distinguishing characteristic of the period under revision (1889–1900), and many have the mistaken notion that they are the equivalent of American high schools. They must be distinguished from the complementary courses of the elementary primary schools. Their course of study must be at least two years, and the full course comprises three or more; the complementary course is of one year's length, and includes at most two divisions, however many pupils there may be. Their material equipment must comprise at least as many distinct rooms as there are years of study, a drawing room, a gymnasium, and a workshop, while the complementary course is maintained as a distinct class with a workshop only required. Their superintendents and professors must hold the professors' certificate for superior primary schools, while the superintendent of the

Elementary primary schools, Paris, June 1900

Question papers to be answered in writing

Arithmétique.

1^{re} Je veux tapisser moi-même un cabinet qui a 2^m, 80 de longueur, 1^m, 40 de largeur et 3^m, 25 de hauteur. Il existe tout autour une boiserie haute de 1^m, 20. Le papier que j'emploie a 0^m, 60 de largeur. Quelle longueur m'en faudra-t-il ?

2^{de} On achète 345^f une obligation qui rapporte 15^f d'intérêt annuel. L'impôt et les frais prélèvent le $\frac{1}{5}$ de cet intérêt. Calculer le taux du placement.

Rédaction.

Différentes manières de voyager. — Autrement. — Aujourd'hui. — Faites quelques réflexions personnelles.

Orthographe (and penmanship)

Le Bavardage, O. Gréard.

(The underscored words with insertions and marginal notes give typical mistakes and markings aggregating 5 of the 10 points and passing the paper.)

2. Parmi les maladies de l'âme, les unes sont dangereuses, les autres odieuses, les autres ridicules; le bavardage est à la fois ridicule, odieux et dangereux. Ridicule, car on se moque des grands ^{1^{er}} parleurs; ^{2^{de}} odieux, car on ^{3^e} aime pas les porteurs de mauvaises nouvelles, dangereux, car ceux qui révèlent leurs propres secrets ou celui des autres s'exposent aux plus terribles mésaventures. Il faut donc combattre le bavardage, doucement, mais incessamment, ^{1^{er}} en se raisonnant d'abord, puis, par l'habitude, en s'acquêtant à ne pas se presser de répondre avant tout le monde, et à ne pas répondre à la place d'un autre; à se surveiller sur les sujets où l'on est, par méfiance, tenter de s'abstenir, à fréquenter de préférence les personnes dont l'âge ou le mérite impose le respect et à s'interroger, avant de parler, sur la portée de ce que l'on va dire.

Couture. (For girls)

A. Un ourlet de 3 à 4^e de large environ exécuté au point de côté

B. Sur cet ourlet, faire une boutonnière.

Agriculture. (For boys in rural schools.)

Avec quoi et comment fait-on le beurre, le fromage ?

Dessin (Épreuve facultative.)

Un modèle en plâtre à reproduire. Les élèves des écoles publiques seules y ont pris parti.

complementary course needs only a superior certificate and the teachers a superior certificate with a pedagogic. The salaries and promotions of teachers in them are higher and more certain than in the complementary course.

The superior primary and technical schools must be distinguished from the secondary schools. "The instruction must be quite another thing than a bad counterfeit of secondary instruction; nor is the superior primary school a degenerate college, it is a perfected school." These schools, destined to complete instruction of the elementary primary school system, are divided today into two types of establishments very clearly defined in all respects from a twofold point of view—administration and instruction. The administration of the superior primary schools is under the ministry of public instruction. The schools of practice, commerce, and industry, are under the jurisdiction of the ministry of commerce. Between these two types are found a certain number of technical schools governed by the law of 1880, under the jurisdiction of a so-called *condominium*, *i. e.*, having a double dependence on two ministries. A commission under the ministry of public instruction has in charge the classification of these superior primary schools, or of complementary courses created by the law of 1880. In 1892–3, by law and decree, certain superior primary schools and technical were detached from the jurisdiction of the ministry of public instruction to become schools of practice in commerce and industry under the ministry of commerce, which are described under that title.

This left to the ministry of public instruction power over the superior primary schools (properly so-called) only, which served a double function—to develop the intellectual and moral education beginning in the elementary primary schools, and to begin the technical instruction which is to continue in other schools—primary in one respect and technical in another. During the first year the pupils pursue a common course to strengthen their primary education. From the second year the courses diverge, leading to a general section for pupils whose career is not chosen and who desire a general education; to special courses in agriculture, industry, or commerce in which general instruction is not

omitted but limited in a manner to permit a greater technical training. The difference in character between the superior primary schools of the ministry of public instruction and the schools of practice in industry of the ministry of commerce is seen in the following table of hours, each week devoted to study and practice :

HOURS PER WEEK, SECOND AND THIRD YEAR.

	Superior-Primary		School of Industry	
	General	Industrial	Sec'd year	Third year
Theoretical..	20	14	12	7½
Practical....	10	14	36	39
Total.....	30	28	48	46½

Scholarships are employed in these schools quite extensively to aid worthy pupils; 10,437 were given during the ten years, 1889-1898, 6356 to boys, 4081 to girls. The amount for 1899 was 773,200 francs. They are assigned to the different departments of France on the basis of population compared with the number of schools therein. They are granted only on competitive examination, both in boys' schools and schools for girls. They are of three classes—for those that reside in the schools, for those that reside at home and have certain privileges in the school, for those of another locality that board in homes assigned by the superintendent. Pupils enter the national technical schools on special competitive examination. The merit of the candidate is determined by his examination, by the services rendered the state by his parents, by the poverty and number of children of his parents. The candidate must be at least twelve years old and not more than fifteen, may enter conditionally without the primary certificate, provided it is secured the first year, submits to written examinations in spelling, composition, arithmetic, and writing; to oral in reading, with questions on grammar and analysis, in metric system, in history and geography of France, in morals and civics, in the elements of science.

Instruction in the superior primary schools is free as in the elementary and the mothers' schools, but unlike these they are

not open to all. Only such pupils are admitted as are competent to pursue the course successfully. To determine this the pupil must hold the primary certificate obtained by examination on the subjects of the middle course of the elementary schools and the certificate of attendance on at least one year of the superior course. In larger places, where the demands for admission exceed the vacancies, competitive examination determines the order of admission. The accompanying tables reveal more clearly than words the organization of the superior primary and industrial schools. These and the programs from which they are taken are not obligatory in themselves; they are recommended as guides for the preparation of the special programs for each school which are modified by the ministry on advice of the director.

Schools of practice section of commerce provide for nine hours additional each year for boys and from three to six for girls.

In October 1898, according to a ministerial circular, there were 297 superior primary schools, 207 for boys and 90 for girls, which contained more than 31,000 pupils maintained at an annual expense of 2,999,337 francs. In 1899 the department of Seine (Paris) had 21 schools, 14 for boys and 7 for girls. These schools are not designed for youth destined to liberal careers, with ample time and means for high intellectual culture. The pupils come from the laboring classes, who must soon be able to work, most frequently at manual labor. They do not aspire to classic education. Their ambition, their probable destiny, is to fill one of the numerous employments afforded the middle classes by agriculture, commerce, or industrial pursuits. The accompanying table is a favorite form with the French superintendents. It compares the parentage and the pursuits of the pupils, completing the superior primary schools except the department of the Seine and Algeria during the last decade. The upper half gives the pursuits entered by the pupil, the lower their parentage. The figures indicate the number of pupils.

The completion of the superior primary school is evidenced

Comparison of subjects and hours in superior primary schools

Ministry of public instruction

Ministry of public instruction														
Section of instruction Subjects		For boys										For girls		
		General			Agriculture		Commercial		Industrial		General			
Year		1	2	3	2	3	2	3	2	3	1	2	3	
Moral instruction		1	1	1	1	1	1	1	1	1	1	1	1	
French		5	5	4	2	2	2	2	2	2	4	4	4	
Penmanship		1	1	1	1	1	1	1	1	1	1	1	1	
History and civics		1	1	2	1	1	1	1	1	1	1	1	1	
Geography		1	1	1	1	1	2	2	1	1	1	1	1	
Modern languages		3	3	2			4	4			3	3	3	
Mathematics		4	3	3	2	2	2	2	3	3	2	1	1	
Bookkeeping			1	1	1	1	3	3	2	2		1	1	
Physics and chemistry		2	2	2	2	2	2	2	2	2				
Natural history and hygiene		1	1	1	2	2	1	1	1	1	2	2	2	
Agriculture and horticulture		1	1	1	3	3								
Common law and economics				1		1		1		1			1	
Drawing and modeling		3	3	3	1½	1½	1½	1½	4½	4½	3	3	3	
Manual training		4	4	4	6	6	2	2	6	6	4	4	4	
Gymnastics		2	2	2	2	2	2	2	2	2	1	1	1	
Singing		1	1	1	1	1	1	1	1	1	1	1	1	
Laboratory					3½	2½	4½	3½	2½	1½				
Total		30	30	30	30	30	30	30	30	30	24	24	24	

Comparison of subjects and hours in schools of practice

Ministry of commerce

Section of instruction		For boys						For girls					
		Industry			Commerce			Industry			Commerce		
Subjects	Year	1	2	3	1	2	3	1	2	3	1	2	3
Moral instruction									1	1		1½	1½
French		3	3	1½	4½	3	3	3	3	1½	4½	3	3
Penmanship					3	1½	1½	1			3	1½	1½
History and civics		1½	1½		1½	1½		1½	1½		1½	1½	1½
Geography		1½	1½		1½	3	3	1½	1½		1½	3	3
Modern languages					6	6	6				4½	4½	4½
Mathematics		3	3	4½	3	4½	4½	1½	3	1½	3	4½	4½
Bookkeeping				1½	6	6	6			1½	4½	4½	4½
Physics and chemistry		1½	3	1½	3	3	3						
Natural history and hygiene			1½	1½		1½		1½	3	4½	1½	3	3
Agriculture and horticulture													
Common law and economics				1½			4½						4½
Drawing and modeling		6	6	6	1½	1½	1½	6	3	3	1½	1½	1½
Manual training		30	30	33				27	28½	31½	3	3	3
Gymnastics													
Singing								4					
Laboratory													
Total		46½	49½	51	30	31½	33	43	48½	44½	28½	31½	36

by a certificate called the primary superior. The examination on which this is issued varies in accord with the section to which the candidate belongs and certificates are issued for the four sections, general, agriculture, industry, and commerce. After 1903 this certificate or that of the school of practice, industry will be necessary for admission to the national schools of arts and trades. The examinations in accord with the decree of September 17, 1893, require general tests, common to all candidates: (1) composition, moral subject, one hour and a half; (2) composition, French letter, narration, etc., one hour and a half; (3) composition, science, comprising a question or problem in arithmetic or geometry, a question in physics or chemistry, a question of natural history, or of hygiene, three hours; (4) composition, freehand drawing, geometrical relief for boys, or a simple design in needlework for girls. Special tests vary with the sections for example in the general and commercial, an easy version with lexicon at the choice of the candidates, German, English, Italian, Spanish, or Arabic, two hours. Oral tests, not exceeding an hour to each candidate, vary with the section, for example, in commerce: (1) questions on history and general geography; (2) on economic geography for different parts of the world; (3) on commercial topics, common law, and economics; (4) on modern language at the choice of the candidate.

The national technical schools were organized by France the same year of the '78 Exposition, and the question of primary technical instruction became in France a question of state. In 1881 a special commission was appointed to determine the question of organizing a grand school where superior primary education, properly called, could be united with a true technical course which school should serve as a model for similar schools to be established by communes or departments. From this has grown the three great national schools at Voiron, Vierzon Armentière, Nancy. The character of these schools can be learned from the following definition by a former director of primary education, M. Buisson:

They are not only special technical schools, schools of arts and trades more or less complete; they are scholastic groups embracing mothers' schools,

elementary primary, superior primary, and all the degrees of technical education advancing successively from the first year, where there is little business education, even to the last semesters, where all is technical.

At the completion of the course the apprentice, who lacks nothing of being a finished workman save the practice of his trade, leaves the national school either to enter the workshop or to pass into a true technical school. These three schools are institutions preparing workmen for life.

The Jean-Baptiste-Say municipal school of Paris is an excellent illustration of the superior primary school for boys, both from the variety of courses it affords externes and internes, and the new opportunities and developments in courses and buildings. The institution affords both elementary and superior primary instruction and a fourth year of supplementary courses leading to industry, commerce and a section of general instruction which borders on modern secondary education. The elementary primary classes embrace three courses, elementary for children from eight to ten, middle nine to eleven and superior ten to twelve. The programs follow those adopted for the communal schools of Paris with the exception that pupils begin a modern language in the elementary course. At the completion of the superior course the pupils pass the examination for the primary certificate. The superior primary classes pursue three years' work. Their programs are the same as those of other schools of Paris and special sections provide for pupils destined for the national schools of arts and trades. In the third year the pupils are divided into two sections, one industrial and the other commercial and the programs vary in accord with the requirements of the section. At the close of the third year, the pupils take the examination for the superior primary certificate.

A class in English numbered nearly fifty pupils and recited twice a week for an hour and a half. Little preparation was made out of the class room and the teacher complained of a want of time to satisfactorily do the work outlined, a complaint made by the other teachers of the school. A dialogue conducted between teacher and pupil was good, especially when the pupil could aid his memory by sly glances at the text. Tone and

pronunciation were poor, but imperfect teaching accounted for that. The work was doubtless as good as that done by pupils in French of the second year in American schools and the teaching up to the average. The pupils of this class comprehended ordinary questions in English, but few could answer such questions as "How many times have you visited the Exposition?" "What day did you last visit it?" "What country were you interested in?" One of the brightest pupils said he was interested in the "men's" of Algeria. He called Algeria "these countries;" when corrected "those" and finally "that."

A new and well lighted drawing room accommodated about fifty pupils, the usual number in a division. The assembly room seated 400 and could be darkened for lantern use, the oxyhydrogen light being employed. The chemical laboratories both general and individual were new. The physical laboratory was connected with the class room and well provided with apparatus and individual laboratories are contemplated. The gymnasium is new and provided with a variety of apparatus, horizontal, parallel and vertical bars, swings, clubs and wands. Few, if any, of the other schools of the city possess these modern facilities. Other buildings are in process of construction. Dormitories and refectories were neat, well lighted and well adapted to the purpose. Each dormitory provided for twenty-five pupils and the master; the refectory for 150 pupils, the upper and lower classes eating in separate rooms. About 300 of the 800 pupils are internes and the city provides all material but the cost of board to internes—a thousand francs a year. The workshops in iron and wood were well provided with tools and the classes were working industriously in each at iron filing, wood sawing and planing. An excellent exhibit was found in the Paris building.

The relation of this school to the city may be most effectively portrayed by mentioning the principal officers that were present at the inauguration of the new buildings on March 30, 1900; the minister of public instruction presided at the ceremonies, having on his right the president of the municipal council, the vice rector of the academy, the president of the council, the

president of the administrative council of the school, the representative of the prefect of police, and on his left the prefect of the Seine, the director of primary education for France, the director of education for Paris, the representative of the minister of commerce.

The work of the technical schools for girls is well represented by the accompanying cut and no better description can be given of their exhibits than that by Miss Smith.¹

The exhibits of the Sophie-Germain and Edgar-Quinet schools form part of the collections in the Paris building and the former was one of its chief attractions. For completeness, simplicity and esthetic effects, it was not surpassed, if, indeed, it was equaled by any other single exhibit. . . . Pupils are not exercised merely in copying from the antique or reproducing the decorative forms which meet the eye on every side, but they are led also to seek new motives in nature. This is the significance of the elaborate herbarium which formed part of the exhibit. The plants are collected and arranged with a view to their esthetic effects and reappear in original designs either in their natural forms or conventionalized. The designs are then worked out in lace embroideries. The cutting, fitting and designing of wraps, mantles and complete costumes are important parts of the course and some beautiful gowns were exhibited perfect in every particular. We could easily understand that in this city where fashion demands a perpetual renewal of esthetic effects, that graduates of this school find ready entrance into remunerative places. . . . It is certain that no American city could maintain such a school at present.

The superior primary school for girls, Edgar-Quinet, Paris, is an excellent example of these schools. The desks and seats, the rooms and facilities are better than in the elementary primary school, but the building is new (about eight years old) and everything modern according to their notion though heated by stoves and ventilated by windows. The collections in the museum are well cared for but not used extensively. In the sewing room seated with low chairs and tables, a class of ten were completing fancy articles started for the Exposition, many of them pieces as elegant as those exhibited. The competitive work in darning showed all kinds and was completed in a time limit of one and a half hours, proving the possibility of an examination in needle work.

¹ *Education*, 1900.



EXHIBIT OF THE WORK OF TECHNICAL SCHOOLS FOR GIRLS

The classification of teachers is interesting. The first in charge of the class aided the pupils and were in charge of the class room, occasionally teaching certain subjects. The others, professors, instructed classes that were sent to them and taught special subjects, English, German, etc. The pupils seemed much older than their ages, sixteen years.

A supplementary division in the commercial course numbered about fifteen, and, as the teacher reviewed the subject, the character of the work was plainly brought out. The review covered the imports and exports of France from various countries. Questions on the United States showed familiarity with the subject though the idea of the extent and resources of our country was quite meager. They were greatly interested in the South African war and showed a clear historical knowledge of the subject and deep sympathy with the Boers. As one expressed it, she knew personally of their sufferings and was interested in preparing and sending supplies to them.

Jacquard, a technical school for young girls, is a typical school under the *condominium*. The aim of this technical and housekeeping school is to form skilled and intelligent workmen, able to maintain the traditions of taste and the superiority of French industry. General instruction is given at the same time as information necessary to housekeeping. Tuition is free with scholarships affording meals to necessitous pupils. No pupils live in the institution, but all are admitted at eight in the morning and leave at half past five in the afternoon, but all dine without exception in the institution.

The course of apprenticeship is three years and the work includes two series of courses, the general pursued throughout the morning from 8:30 to 11:30 and the technical during the afternoon from 1 to 5:30. The housekeeping courses include cutting, ironing, and mending, and are continuous throughout the apprenticeship period. The subjects of the special course will briefly indicate its character: needle work for robes and outfits, corsets, linen, modes, and attires, straw hats including the stitching of straw for women's hats, shaping, weaving of straw and fancy articles, blouses and costumes for little boys,

embroidery for upholstery and for costumes, flowers and feathers in fancy articles.

A certificate of apprenticeship is given the pupil at the completion of the third year when she has successfully completed the graduating examinations. Pupils are admitted to the school on competitive examinations quite similar to the other competitive examinations save that special importance is attached to the tests in ornamental drawing and needlework.

Two typical technical schools of Paris are Diderot and Boule. The accompanying view from Diderot shows finished products from some of the courses with a model of an engine in wood, the work of pupils of the school. The aim of this apprenticeship school is to train workmen skilled and able to gain their livelihood on exit from the school. Apprentices are received for the following ten courses: forging, metal turning, fitting, instruments of measurement, electricity, modeling, pattern making, brazing, joinery, sanitary plumbing and locksmithing.

Apprenticeship continues three years, and a certificate is given the pupil at the close of the third year after the technical examination. The pupils choose their courses on entering the school in conformity with their number obtained at the competitive examination and in accord with the number of places vacant. The work rotates throughout the year as the pupils in a group complete the work of the different workshops. The day includes five and a half hours in the workshop for the first two classes and seven and a half hours for the third; three hours in class for the first two years and two hours for the third. The work is separated by periods of rest and recreation. The school costs the government about 280,000 francs a year, and the value of products produced by the pupils and used in the departments of the city amounts to 200,000 francs. While the work of the pupils in the manual training classes of our high schools need prove of no more value than the scrap paper used in algebra or Caesar classes, considerable saving might be developed in both departments by the use of permanent notebooks in the culture classes and the making of finished products of intrinsic value in the workshops.

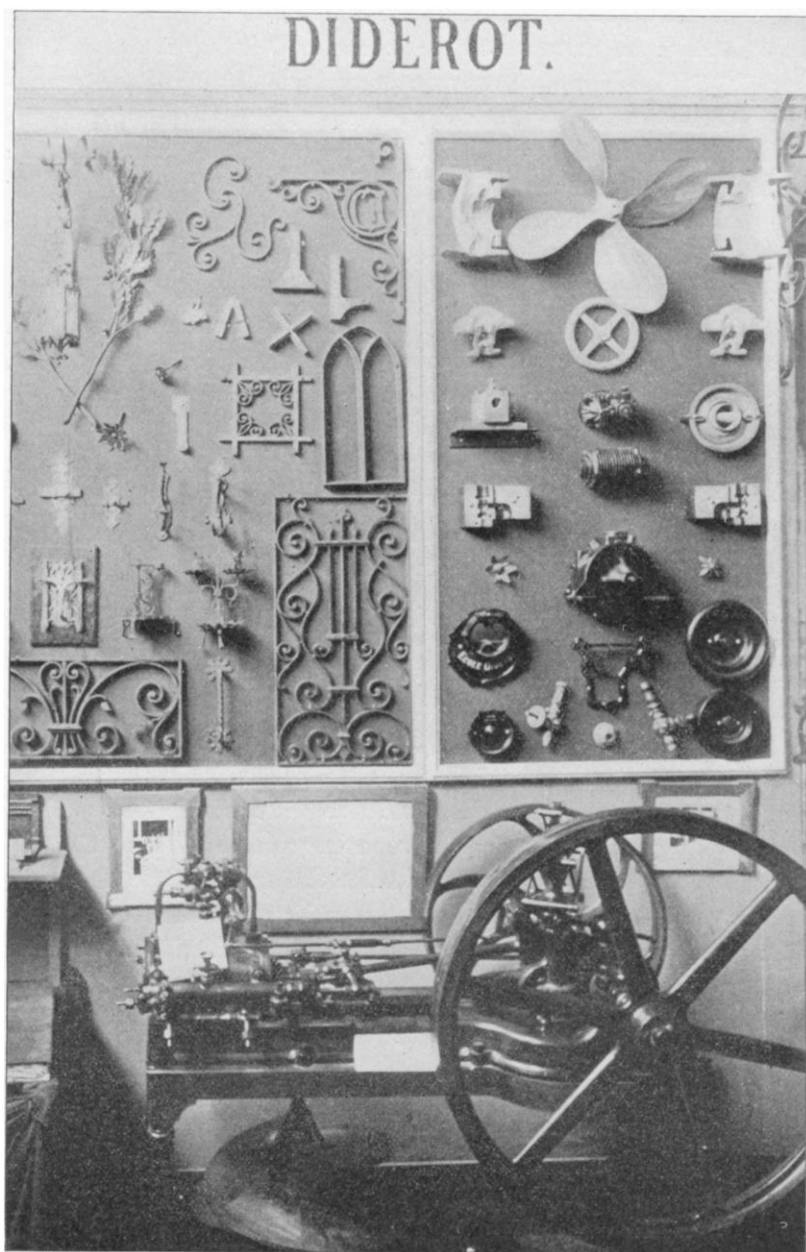


EXHIBIT OF THE DIDEROT TECHNICAL SCHOOL FOR BOYS

The school provides for externes only, but a midday meal is furnished at an expense of ten cents, and indigent pupils can secure scholarships that provide even this. The school year is forty-seven weeks long, and in the experience of the school the pupils earn at exit about double the wages of their parents in the same employment.

Boulle.—The accompanying illustration from the technical school Boulle shows the work of pupils only. The aim of this school is to train workmen capable of maintaining the French tradition of taste and the superiority of Parisian industries in all the artistic products of furnishings. Though a technical school the pupils at graduation complete an apprenticeship, and at the same time receive superior primary instruction appropriate to the demands of the trade they choose. There are two sections, one for furnishings and the other for metal work. Each is divided into two distinct branches, one technical and the other theoretic and artistic. The technical instruction is given by masters occupied wholly with the apprentices. The subjects of this technical work in the furnishing section are cabinet work, upholstery, carving in wood, joinery in seats, turning in wood and metal, molding and repairing. In the metal section the subjects are, chasing in its applications to furnishings and articles of bronze, gold working and jewelry, mounting the same, engraving dies and matrices, and the different forms used in bookmaking. The metal section, moreover, has different exercises in boring, planing, and modeling in sand. The theoretic and artistic instruction embraces a review of the subjects of primary instruction, geometry, technology, industrial economics, history of art, decorative composition, art designs, modeling applied to decorative arts and metals, industrial drawing, water colors, and stereotomy.

Industrial and commercial education, class 6, which found no special class in previous universal expositions is older in France than agricultural instruction. The first attempt to establish it is due to the Abbe de la Salle, founder of the Christian Brothers' schools, whose successors had already developed his work in 1788, when the Duke of Larochevoucauld-Liancourt established



BOULLE TECHNICAL SCHOOL FOR BOYS, FURNISHINGS AND METAL WORKING.

a genuine school where general instruction and technical ideas relating to the practice of a trade were given which became the cradle of French schools of arts and trades.

In 1863, after the London Exposition, the French minister of agriculture, of commerce, and public works, aroused by the realization of the great progress made in all Europe by industries rivaling the French, created a commission for the investigation of technical instruction. A remarkable report by the director of the National Conservatory of Arts and Trades in 1865 summed up the results of the commission's inquiries. The Universal Exposition of 1878 showed once more the ground gained by rivals of France. In 1880 the investigation into art industries was the occasion of no less disturbing revelations, and the same year the law of December 11 established the schools of apprenticeship. By decree these schools were placed under the double control of the ministry of public instruction and the ministry of commerce.

The anticipated results of this dual régime were not attained, and of the thirty-six schools resulting either from new creations or from changes in existing primary schools, twenty-one only are genuine technical institutions.

Among the schools founded in the last ten years, the following are noteworthy. The National School of Cluny, opened in 1891, can be said to hold today the place lately occupied by the national schools of arts and trades. Installed in the structure once celebrated as the abbey of the order of St. Benoît, which was used in 1865 for the normal school of special secondary instruction of Cluny, it contains, as does each of the schools of arts and trades, 300 pupils. The schools of practice in commerce and industry have the character of public institutions supported by the state and municipalities to which a certain share of authority is left. By definition they are schools where instruction is truly and principally technical. They aim to form : (1) apprentices instructed and practiced in the different kinds of industry ; (2) young men well prepared for the commercial career. Many of these schools include two departments, the one industrial, the other commercial, and the thirty-three schools



COLLECTIVE EXHIBIT IN WOODWORK, FROM CLASS 6, SPECIAL EDUCATION,
INDUSTRY AND COMMERCE

contain about 5000 pupils. Their results are highly satisfactory, and statistics of 1896 and 1897 show that 95 per cent. of the pupils have followed the career for which they were prepared.

The superior schools of commerce are private schools, but the state's exemption of two years from military service has brought their curriculums, admission requirements, and final examinations under strict administrative control.

The superior schools of commerce today number twelve, and are attended by 1300 pupils. The number of pupils applying themselves to technical, industrial, or commercial study in France is 22,000; industry, 20,000; commerce, 2000. In Belgium it exceeds 30,000; in England, the city and guilds of London Institute alone reaches 25,000.

It should be added that a large number of free institutions have been founded by the Brothers of the Christian schools. Says a ministerial circular of 1893:

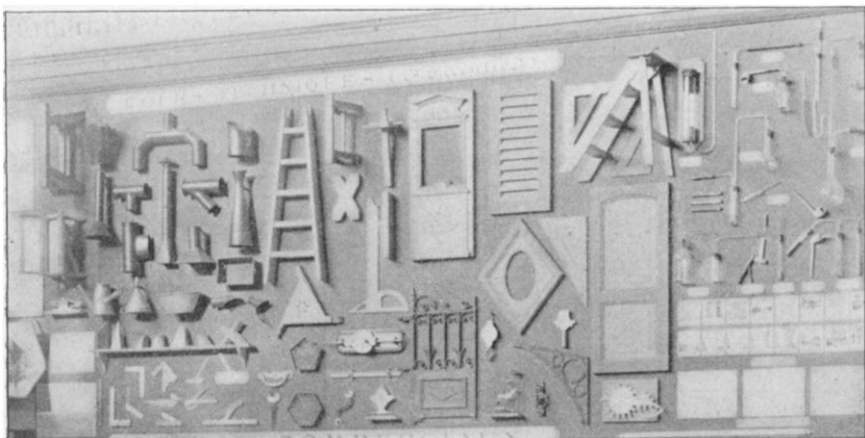
The benefits of a general education cannot be contested. It is a solid base which augments the value of the man and renders more profitable the technical information which he acquires, and it is not the purpose of the school of practice to prescribe it. The pupils must necessarily complete their primary education, and they cannot be admitted till the compulsory school period is passed. But it is necessary to care for the demands of commerce and industry. Each day in truth commercial strife between peoples become more ardent, and the corresponding difficulties greater. Industrial lines have had a profound transformation, all is sacrificed to the aim of producing quickly and cheaply, and, as a consequence, a division of labor and the employment of machinery has done away with the apprenticeship system. . . . It has become indispensable to afford our merchants well-prepared helpers, and to furnish from our industrial class chosen workmen—such is the task of the schools of practice.

Adult courses, evening schools.—This work that was scarcely outlined a few years ago has developed with great rapidity and today shows excellent results. The former adult courses were too tedious, too pedagogical. Thanks to the new groupings, better suited to the work the desired prolongation of this instruction has been secured.

Directors of adult courses choose carefully their programs and methods and in this way moral instruction comes to

complete an instruction that is almost wholly utilitarian and adults learn what duties await them when they reach maturity.

Nearly all adult courses include two sections, one reserved for the illiterate, the other technical or business. As developed by associations in urban districts the latter grow more popular. In the villages the teachers more conversant with agricultural science aid the farmer's lad, while in Brittany and Provence the



ADULT COURSES, NIGHT SCHOOLS OF PARIS

instructors often give winter courses on sea fishing or island fauna. The accompanying illustration gives a good idea of the variety afforded by adult courses in the night schools of Paris.

The pedagogical museum was created in Paris in 1879 which contains collections of books, scientific instruments, furniture and school material. It collects exhibits fostering pedagogical study and serves to publish and apply the best methods. In 1882 traveling libraries were authorized for the purpose of aiding teachers that wished to continue their pedagogical courses with the more special object in view of preparation for the diverse examinations for primary technical instruction. The last catalogue of circulating libraries contains 494 works. During 1899, 534 loans were made and the total number of loans to pupils were 2175. In 1896 two important educational societies of France gave the ministry their collections of photographic

views and the system of loans was organized by the museum to put them at the disposal of those that were preparing for competitive examinations. At the close of the year 1895 the ministry had added 11,000 slides to those which had been given and could place in circulation 32,600 or about 1600 collections. In 1898-9 the collections had increased to 3450 and the loans had increased to 22,600. In this last year the daily loans often amounted to 400.

It is interesting to compare this work with what New York state did in the same line during 1899. Under the superintendent of public instruction the American museum of natural history furnished to the seventy-five cities and villages of the state 22,500 lantern slides and the regents of the University of the State of New York 10,500 to the high schools of the state, total 33,000; the teachers' library of the department of public instruction possessed about 2000 volumes of different titles and loaned about 2000 volumes; the regents 50,000 and loaned 32,000 to 550 different places; the regents also possessed over 8000 photographs and 650 wall pictures and loaned nearly 4000 photographs to forty places and 528 wall pictures to decorate the walls of sixty-four places.

The teachers and pupils of France with a population of over 35,000,000 had access to about 450 books, 33,000 lantern slides and no wall pictures, and used about 2600 books and 23,000 slides: the teachers and students of New York state with a population of about 7,000,000 had access to about 52,000 books, 33,000 slides and 8650 photographs and wall pictures, and used 34,000 books, 33,000 slides and 4500 photographs and wall pictures outside the city of New York.

As I said above little attention, if any, is given to school-room decoration, as we know the term in America. A professor in charge of courses in the faculty of the Sorbonne showed with great interest the photographic views that he was preparing to loan through the secondary schools of France. As it was the first I had seen (in France), I became interested and asked several questions concerning his methods. He thought it an original idea and asked whether I had come in contact with it

anywhere else. I replied as courteously as possible that New York state was doing something in that line and was amused at a later date to hear him narrate my reply to a group of colleagues, crediting New York state with several rooms and many helpers in contrast with his single cabinet and three drawers. I had been flattering myself that I showed no inordinate impression of New York's leadership and was surprised to hear him describe our facilities in connection with traveling libraries, lantern slides, traveling pictures, and schoolroom decorations.

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